



# Analytical Laboratory

13339 Hagers Ferry Road  
Huntersville, NC 28078-7929  
McGuire Nuclear Complex - MG03A2  
Phone: 980-875-5245 Fax: 980-875-4349

## Order Summary Report

**Order Number:** J12080035

Project Name: NPDES - QUARTERLY

Customer Name(s): Matthew Dorn, Mark Harper, Todd Spade, Tara Thomas, Matthew Hoyt

Customer Address: 11021 BROWER RD.

NORTH BEND, OH 45052

Lab Contact: Theron T James Phone: 980-875-4795

**Report Authorized By:** \_\_\_\_\_ **Date:** 8/27/2012  
**(Signature)**

---

### Program Comments:

Miami Fort August NPDES

### Data Flags & Calculations:

Any analytical tests or individual analytes within a test flagged with a Qualifier indicate a deviation from the method quality system or quality control requirement. The qualifier description is found at the end of the Certificate of Analysis (sample results) under the qualifiers heading. All results are reported on a dry weight basis unless otherwise noted. Subcontracted data included on the Duke Certificate of Analysis is to be used as information only. Certified vendor results can be found in the subcontracted lab final report. Duke Energy Analytical Laboratory subcontracts analyses to other vendor laboratories that have been qualified by Duke Energy to perform these analyses except where noted.

### Data Package:

This data package includes analytical results that are applicable only to the samples described in this narrative. An estimation of the uncertainty of measurement for the results in the report is available upon request. This report shall not be reproduced, except in full, without the written consent of the Analytical Laboratory. Please contact the Analytical laboratory with any questions. The order of individual sections within this report is as follows:

*Job Summary Report, Sample Identification, Technical Validation of Data Package, Analytical Laboratory Certificate of Analysis, Analytical Laboratory QC Reports, Sub-contracted Laboratory Results, Customer Specific Data Sheets, Reports & Documentation, Customer Database Entries, Test Case Narratives, Chain of Custody (COC)*

### Certification:

The Analytical Laboratory holds the following State Certifications : North Carolina (DENR) Certificate #248, South Carolina (DHEC) Laboratory ID # 99005. Contact the Analytical Laboratory for definitive information about the certification status of specific methods.

*The results in this report meet NELAP requirements through New York State Department of Health Certification # 11717.. Certified parameters are designated with an "N" in the analytical report.*

Sample ID's & Descriptions:

Sample ID	Plant/Station	Collection Date and Time	Collected By	Sample Description
2012016670	MIAMI-FORT	07-Aug-12 8:15 AM	M. Dorn	OUTFALL 002
2012016671	MIAMI-FORT	07-Aug-12 8:40 AM	M. Dorn	OUTFALL 608
2 Total Samples				

## Technical Validation Review

### Checklist:

COC and .pdf report are in agreement with sample totals and analyses (compliance programs and procedures).

☒ Yes

☐ No

All Results are less than the laboratory reporting limits.

☐ Yes

☒ No

All laboratory QA/QC requirements are acceptable.

☒ Yes

☐ No

### Report Sections Included:

☒ Job Summary Report

☒ Sample Identification

☒ Technical Validation of Data Package

☒ Analytical Laboratory Certificate of Analysis

☐ Analytical Laboratory QC Report

☐ Sub-contracted Laboratory Results

☐ Customer Specific Data Sheets, Reports, & Documentation

☐ Customer Database Entries

☒ Chain of Custody

☐ Electronic Data Deliverable (EDD) Sent Separately

Reviewed By: Theron T James

Date: 8/27/2012

**Certificate of Laboratory Analysis***This report shall not be reproduced, except in full.***Order # J12080035**

Site: OUTFALL 002

Collection Date: 07-Aug-12 8:15 AM

**Sample #: 2012016670**

Matrix: NPDES

Analyte	Result	Units	Qualifiers	RDL	DF	Method	Analysis Date/Time	Analyst
<b><u>AMMONIA (COLORIMETRIC)</u></b>								
Ammonia (Colorimetric)	<b>0.14</b>	mg-N/L	N	0.02	1	EPA 350.1	8/10/2012 12:20:00 F	BGN9034
<b><u>TOTAL KJELDAHL NITROGEN (COLORIMETRIC)</u></b>								
Total Kjeldahl Nitrogen (Colorimetric)	<b>0.98</b>	mg-N/L	N	0.15	1	EPA 351.2	8/14/2012 11:45:00 A	BGN9034
<b><u>TOTAL DISSOLVED SOLIDS</u></b>								
TDS	<b>1100</b>	mg/L	N	10	1	SM2540C	8/13/2012 4:05:00 P	TJA7067

Site: OUTFALL 608

Collection Date: 07-Aug-12 8:40 AM

**Sample #: 2012016671**

Matrix: NPDES

Analyte	Result	Units	Qualifiers	RDL	DF	Method	Analysis Date/Time	Analyst
<b><u>ALKALINITY (FIXED END POINT 4.5)</u></b>								
Alkalinity (mg/L CaCO <sub>3</sub> )	<b>1400</b>	mg/L (CaCO <sub>3</sub> )	N	0.1	1	SM2320B	8/16/2012 4:33:00 P	TJA7067
<b><u>INORGANIC IONS BY IC</u></b>								
Chloride	<b>6400</b>	mg/L	N	100	1000	EPA 300.0	8/8/2012 5:01:00 PM	JAHERMA
Fluoride	<b>12</b>	mg/L	N	5	50	EPA 300.0	8/8/2012 5:01:00 PM	JAHERMA
Sulfate	<b>10000</b>	mg/L	N	300	3000	EPA 300.0	8/8/2012 5:01:00 PM	JAHERMA
<b><u>TOTAL METALS BY ICP</u></b>								
Boron (B)	<b>401</b>	mg/L	N	0.5	10	EPA 200.7	8/10/2012 3:59:00 P	DJSULL1
Iron (Fe)	<b>0.110</b>	mg/L	N	0.01	1	EPA 200.7	8/10/2012 3:59:00 P	DJSULL1
Manganese (Mn)	<b>0.064</b>	mg/L	N	0.005	1	EPA 200.7	8/10/2012 3:59:00 P	DJSULL1
<b><u>TOTAL RECOVERABLE METALS BY ICP-MS</u></b>								
Arsenic (As)	<b>&lt; 20</b>	ug/L	N	20	1	EPA 200.8	8/13/2012 10:37:00 A	KRICHA
Barium (Ba)	<b>160</b>	ug/L	N	20	1	EPA 200.8	8/13/2012 10:37:00 A	KRICHA
Cadmium (Cd)	<b>&lt; 20</b>	ug/L	N	20	1	EPA 200.8	8/13/2012 10:37:00 A	KRICHA
Chromium (Cr)	<b>&lt; 20</b>	ug/L	N	20	1	EPA 200.8	8/13/2012 10:37:00 A	KRICHA
Copper (Cu)	<b>&lt; 20</b>	ug/L	N	20	1	EPA 200.8	8/13/2012 10:37:00 A	KRICHA
Lead (Pb)	<b>&lt; 20</b>	ug/L	N	20	1	EPA 200.8	8/13/2012 10:37:00 A	KRICHA
Zinc (Zn)	<b>&lt; 20</b>	ug/L	N	20	1	EPA 200.8	8/13/2012 10:37:00 A	KRICHA
<b><u>TOTAL DISSOLVED SOLIDS</u></b>								
TDS	<b>32000</b>	mg/L	N	10	1	SM2540C	8/13/2012 4:05:00 P	TJA7067
<b><u>TOTAL SUSPENDED SOLIDS</u></b>								
TSS	<b>14</b>	mg/L	N	5	1	SM2540D	8/13/2012 2:26:00 P	TJA7067



# CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

Analytical Laboratory  
Page 5 of 5



## Duke Energy Analytical Laboratory

Mail Code MGO3A2 (Building 7405) 13339  
Hagers Ferry Rd  
Huntersville, N. C. 28078  
(704) 875-5245 Fax: (704) 875-4349

## Analytical Laboratory Use Only

LIMS # <b>J12080035</b>	Sample Class <b>NPDES</b>	Samples Originating From	OH <input checked="" type="checkbox"/>
Logged By <b>KLP</b>	Date & Time <b>8/8/12 1119</b>	SAMPLE PROGRAM NPDES <b>X</b>	
Vendor <b>2.4</b>	Cooler Temp (C)		

<sup>19</sup>Page 1 of 1  
DISTRIBUTION  
ORIGINAL to LAB,  
COPY to CLIENT

1) Project Name <b>MIAMI-FORT NPDES Quarterly (Week 1 - August 7, 2012)</b>		2) Phone No:
3) Client <b>Sue Wallace, Tara Thomas, Matthew Hoyt</b>		4) Fax No:
5) Business Unit:	6) Process:	7) Resp. Center To:
8) Project ID:	9) Activity ID:	10) Mail Code:

PO #	MR #	Customer to complete all appropriate non-shaded areas.		<sup>15</sup> Preserv.: 1=HCL 2=H <sub>2</sub> SO <sub>4</sub> 3=HNO <sub>3</sub> 4=Ice 5=None		4	4.2	3	4	4	4								
				<sup>16</sup> Analyses Required															
				<sup>14</sup> Collection Information															
				Date Time Signature															
				8/7/12 08:15 Matt Dorn															
				8/7/12 08:40 Matt Dorn															

LAB USE ONLY
<sup>11</sup> Lab ID
201201W670
201201W671

<sup>12</sup> Chem Desktop No.	<sup>13</sup> Sample Description or ID
	Outfall 002
	Outfall 608

Customer to sign & date below - fill out from left to right.

1) Relinquished By <b>Matt Dorn</b>	Date/Time <b>8/7/12 09:07</b>	2) Accepted By <b>Cowier</b>	Date/Time <b>8/7/12</b>
3) Relinquished By <b>Cowier</b>	Date/Time <b>8/8/12 1100</b>	4) Accepted By <b>B. L. Davis</b>	Date/Time <b>8/8/12 1100</b>
5) Relinquished By	Date/Time	6) Accepted By:	Date/Time
7) Relinquished By	Date/Time	8) Accepted By:	Date/Time
9) Seal/Locked By <b>Matt Dorn</b>	Date/Time <b>8/7/12 09:07</b>	10) Seal/Lock Opened By <b>B. L. Davis</b>	Date/Time <b>8/8/12 1105</b>
11) Seal/Locked By	Date/Time	12) Seal/Lock Opened By	Date/Time
Comments: <b>ICP-TOT - B, Fe, MN IMS-TRM - As, Ba, Cd, Cr, Cu, Pb, Zn Fe HACH = 0.19 mg/L</b>			

Customer, IMPORTANT!  
Please indicate desired turnaround.

<sup>22</sup>Requested Turnaround  
14 Days \_\_\_\_\_  
\*7 Days \_\_\_\_\_  
\*48 Hr \_\_\_\_\_  
\*Other \_\_\_\_\_  
\* Add. Cost Will Apply